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**Holzapfel**

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(54) **FRAMING APPARATUS AND METHOD FOR MOUNTING ADVERTISING MATERIAL TO A TRAFFIC CONTROL CABINET**

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(22) Filed: **Dec. 18, 2015**

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(51) **Int. Cl.**

| | |
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| ***G09F 13/04*** | (2006.01) |
| ***G09F 7/18*** | (2006.01) |
| ***E05B 73/00*** | (2006.01) |
| ***E05B 65/00*** | (2006.01) |
| ***E05B 65/44*** | (2006.01) |
| ***F21V 33/00*** | (2006.01) |
| *F21W 131/10* | (2006.01) |

(52) **U.S. Cl.**

CPC ..... ***A47B 81/00*** (2013.01); ***E05B 65/00*** (2013.01); ***E05B 65/44*** (2013.01); ***E05B 73/00*** (2013.01); ***F21V 33/0012*** (2013.01); ***G09F 7/18*** (2013.01); ***G09F 13/0413*** (2013.01); *F21W 2131/10* (2013.01); *G09F 2007/1843* (2013.01); *G09F 2013/0445* (2013.01)

(58) **Field of Classification Search**

CPC ..... A47B 81/00; A47B 97/00; E05B 65/00; E05B 65/44; E05B 73/00; G09F 7/18; G09F 13/0413; G09F 13/08; G09F 2007/1878; G09F 2007/1843; G09F 2013/049; G09F 13/10; G09F 13/12; G09F 13/0486; F21W 2131/10; F21V 33/0012

See application file for complete search history.

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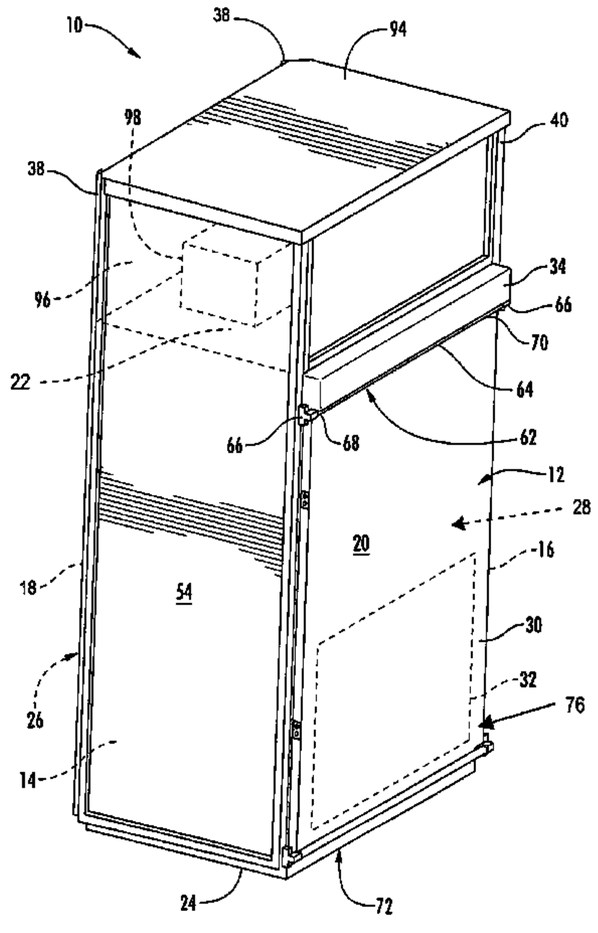
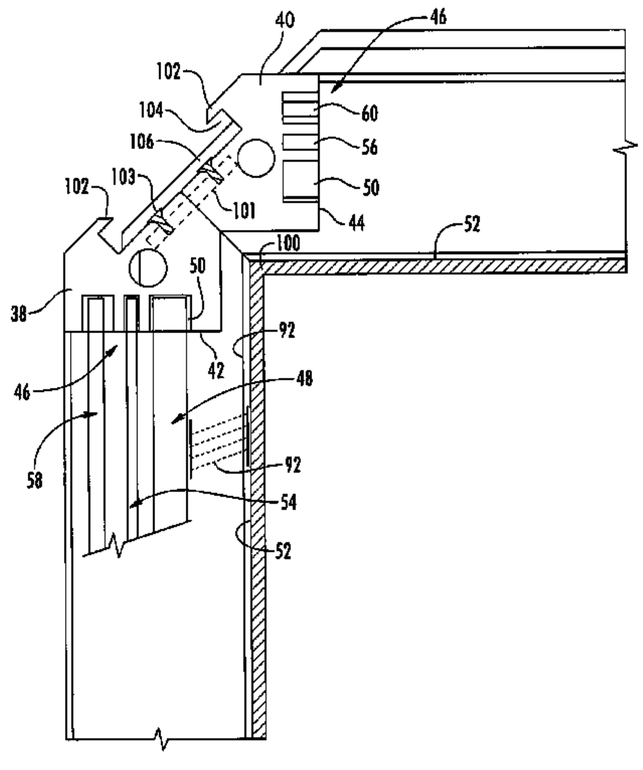
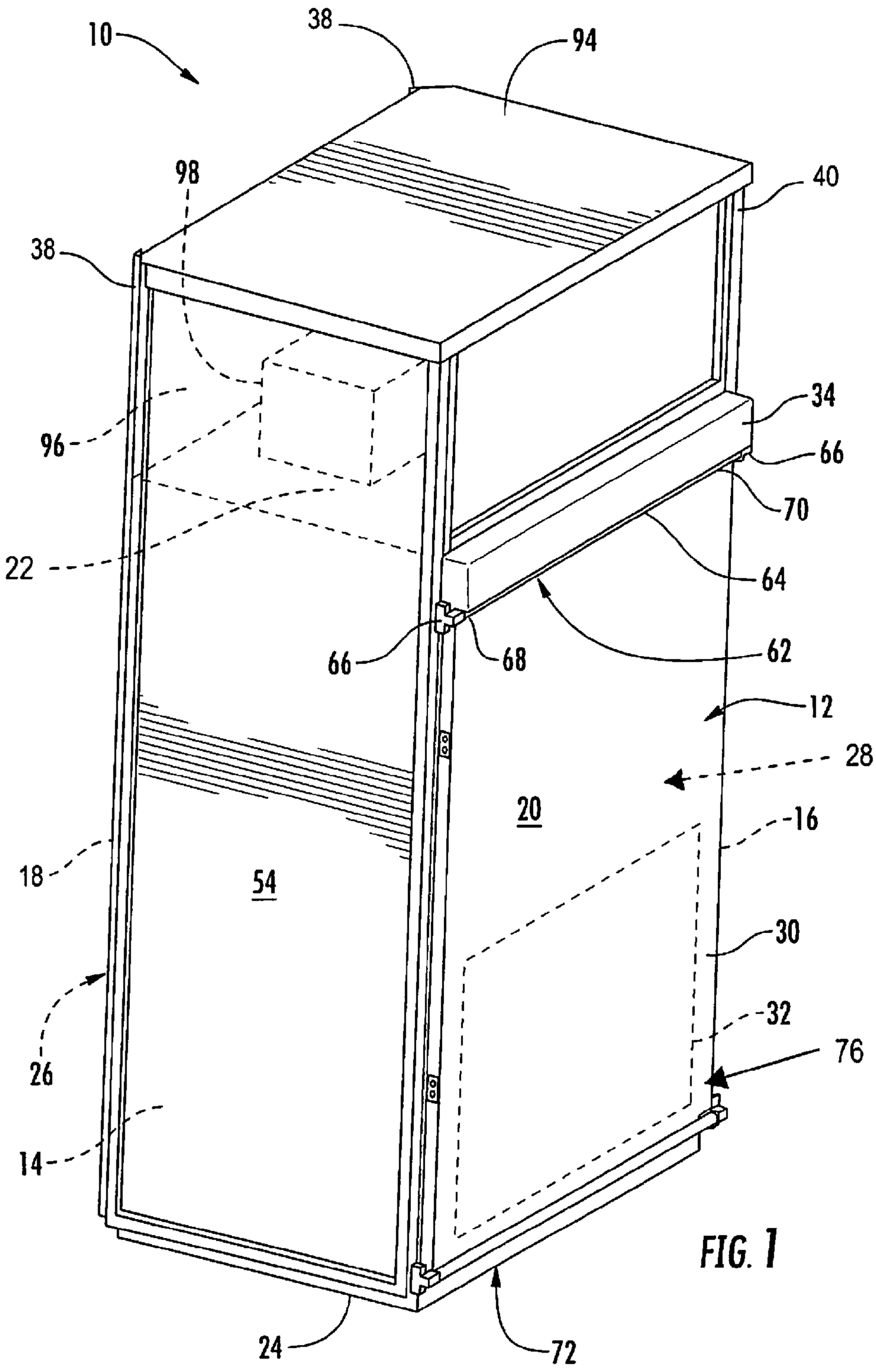
(57) **ABSTRACT**

An advertising medium includes a frame enclosing a traffic signal control cabinet. Tie rods extend between lock devices, which are secured to rails of the frame such that removing the frame from its position around the cabinet is prevented. As a result, advertising material may be secured to a traffic signal control cabinet without intruding upon or modifying the cabinet.

**7 Claims, 9 Drawing Sheets**

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32
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76
14
24
72

FIG. 1

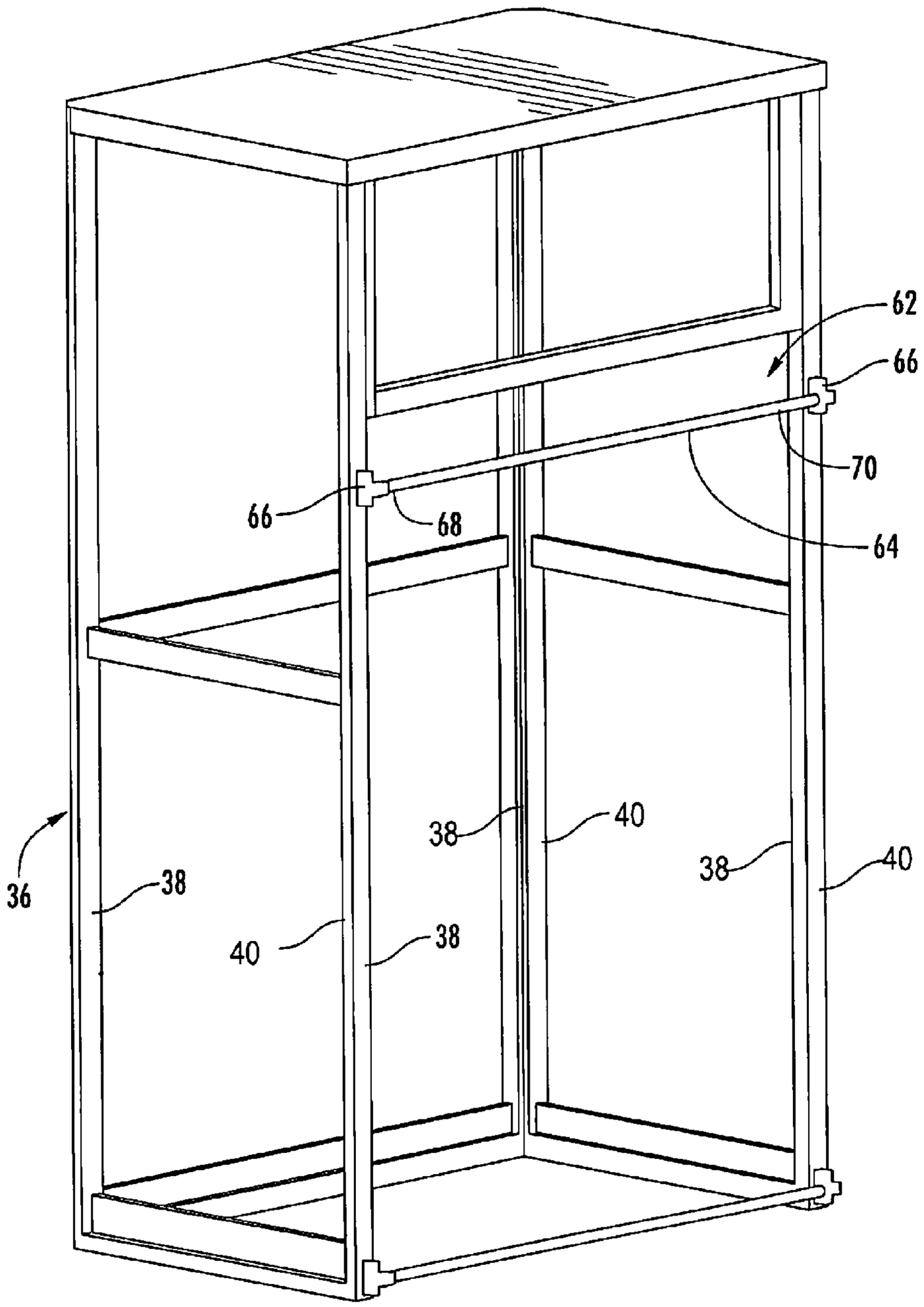
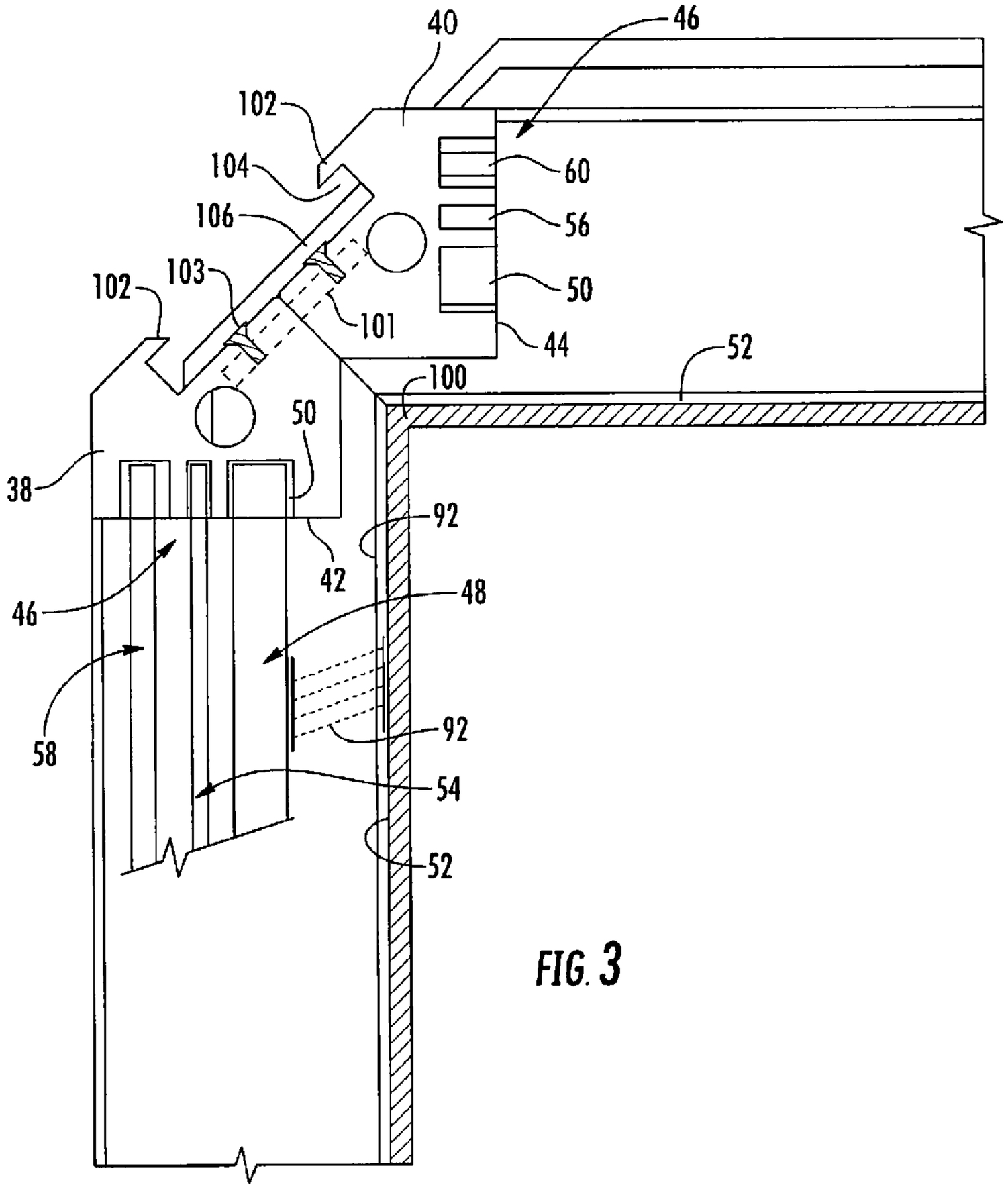



FIG. 2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46
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104
106
103
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50
38
92
42
46
48
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92
54
52

FIG. 3

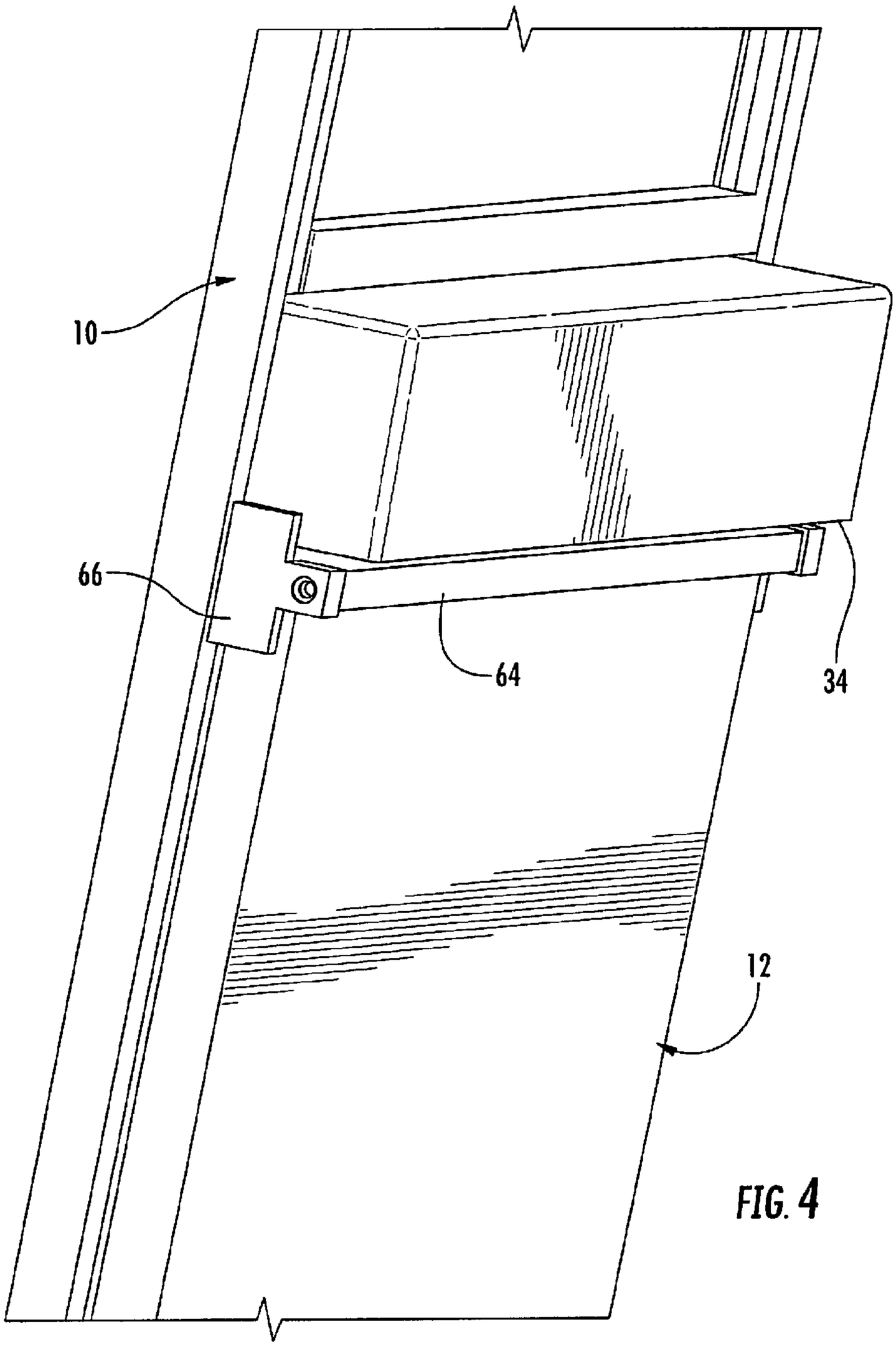


FIG. 4

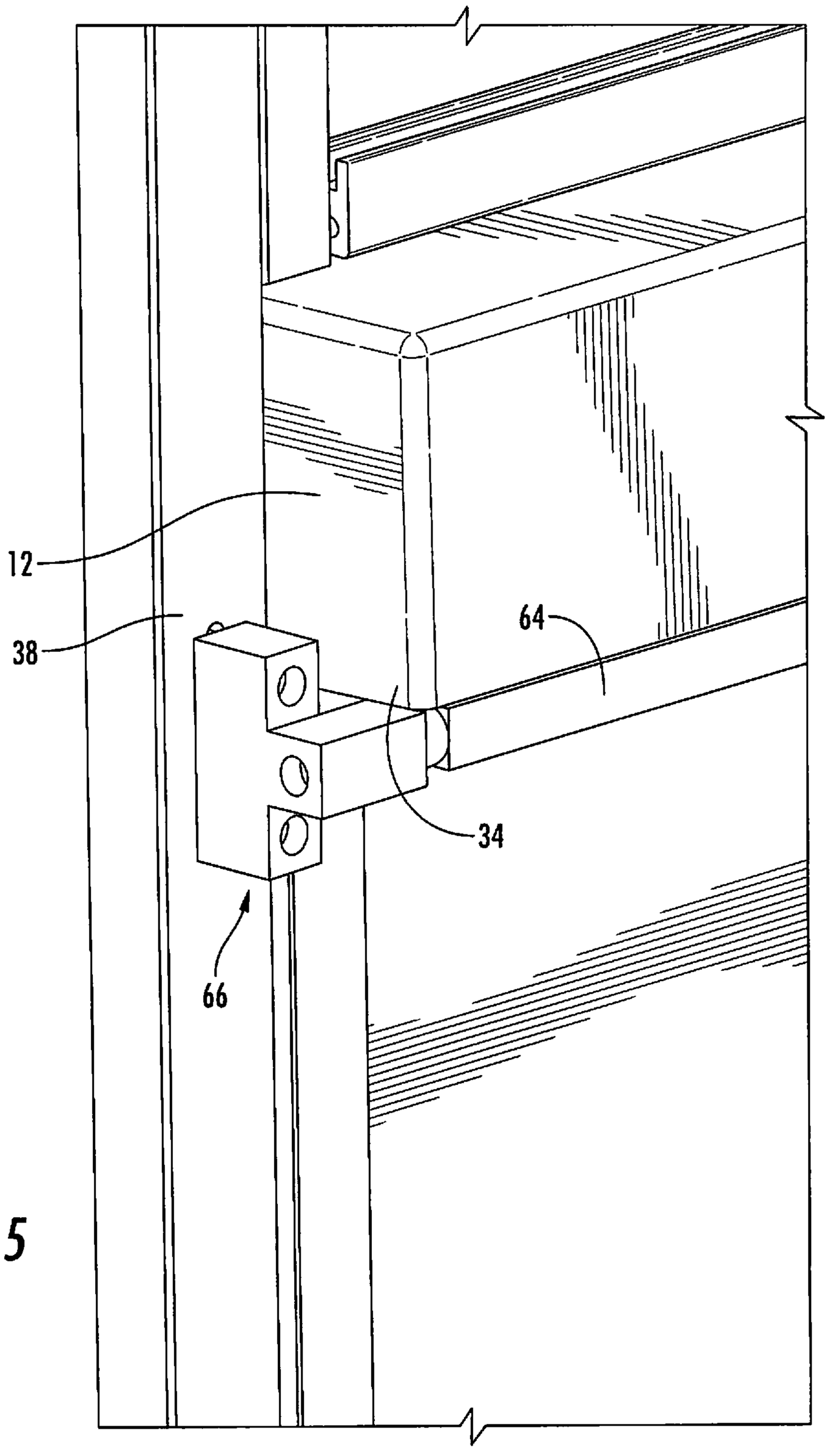


FIG. 5

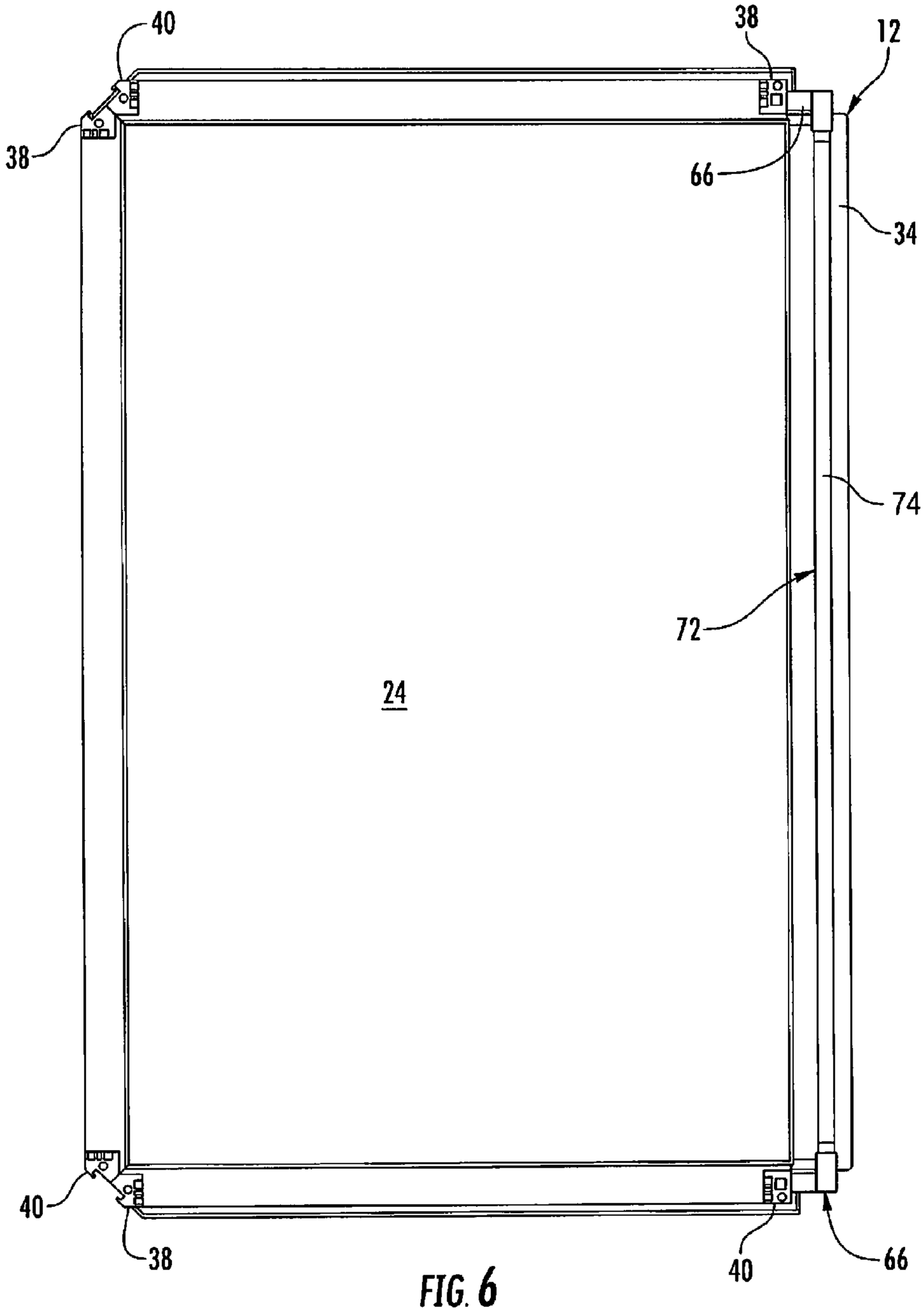


FIG. 6

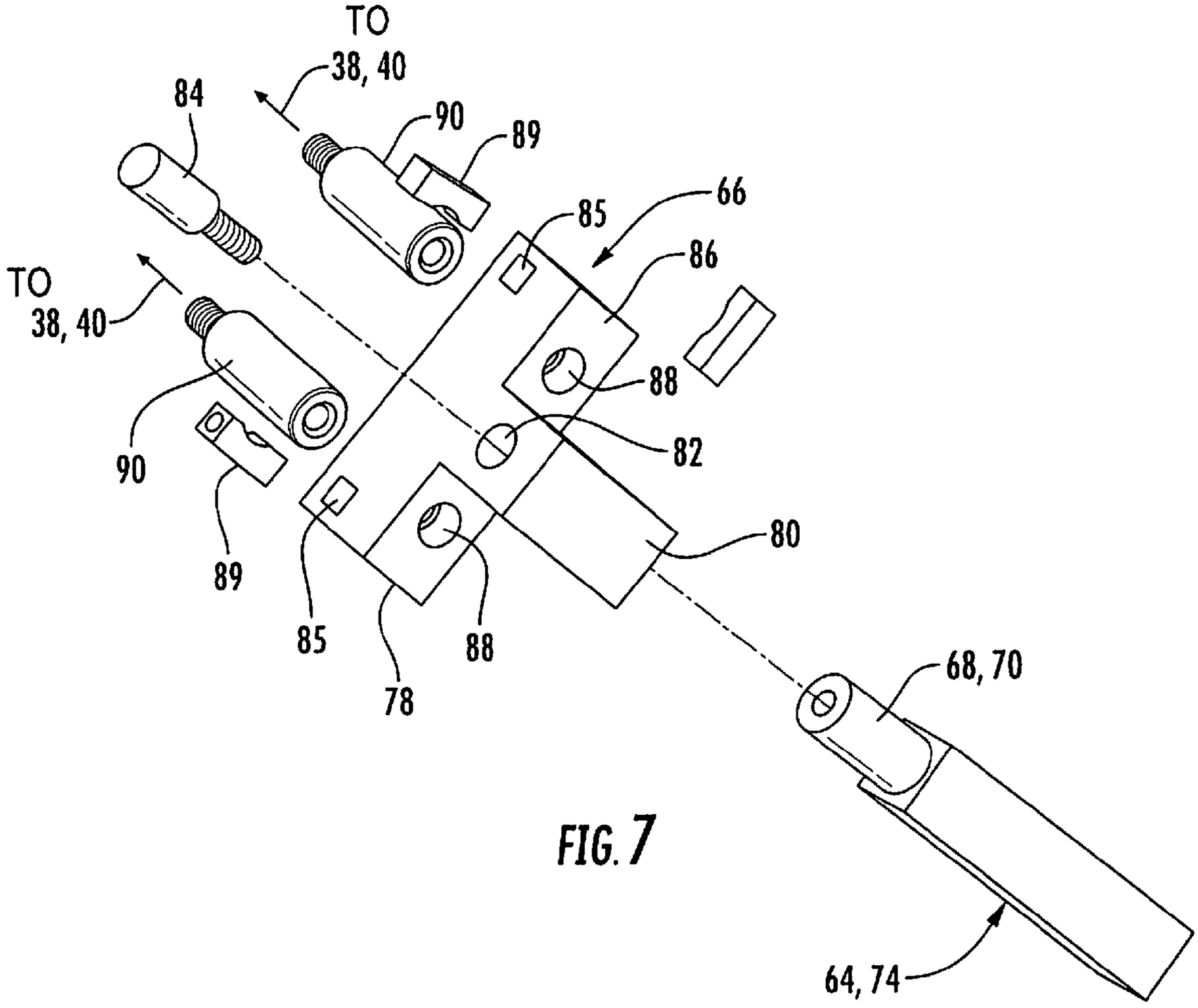
TO
38, 40
84
38, 40
90
89
66
85
86
TO
38, 40
88
90
82
89
85
80
88
78
68, 70
64, 74

FIG. 7

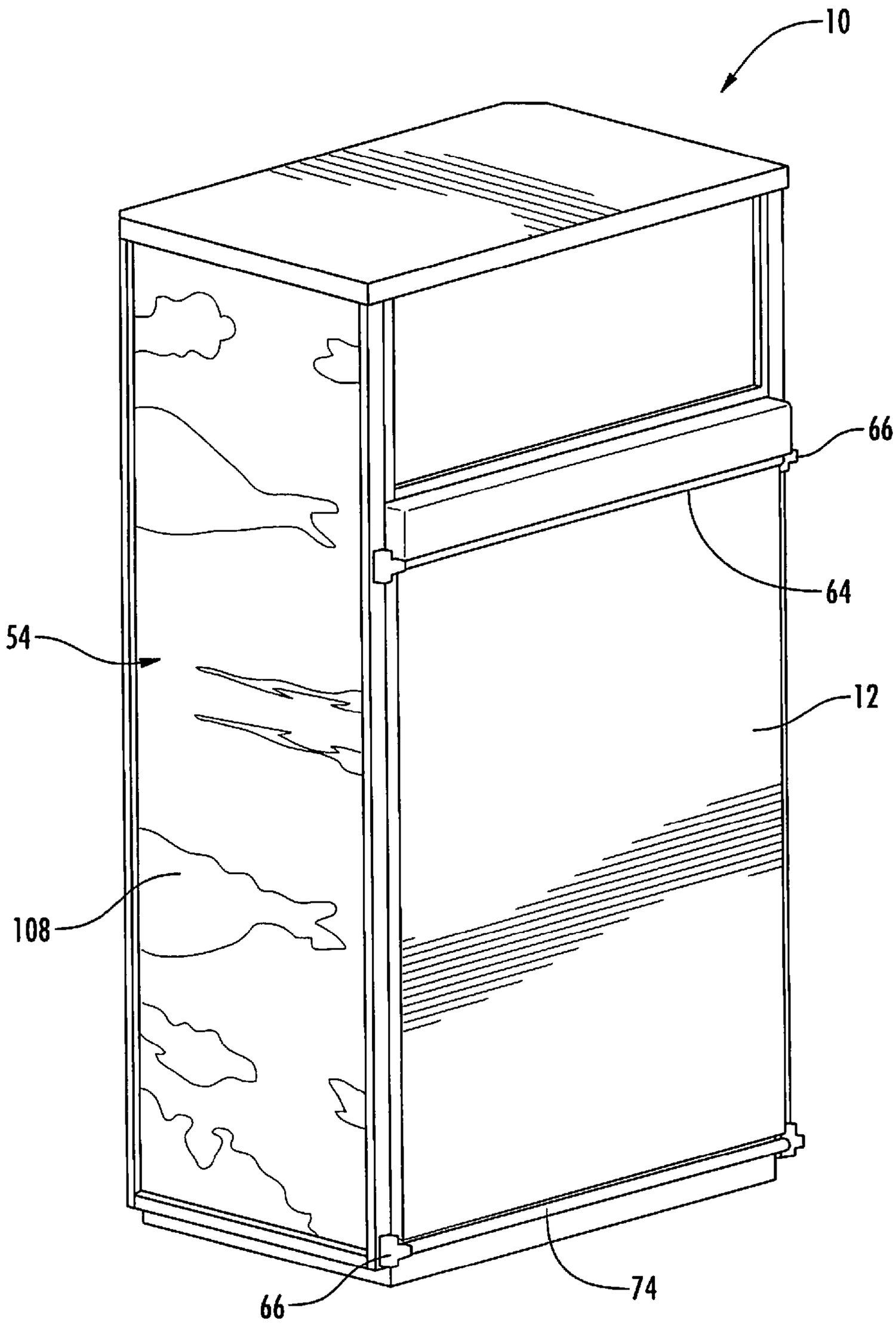


FIG. 8

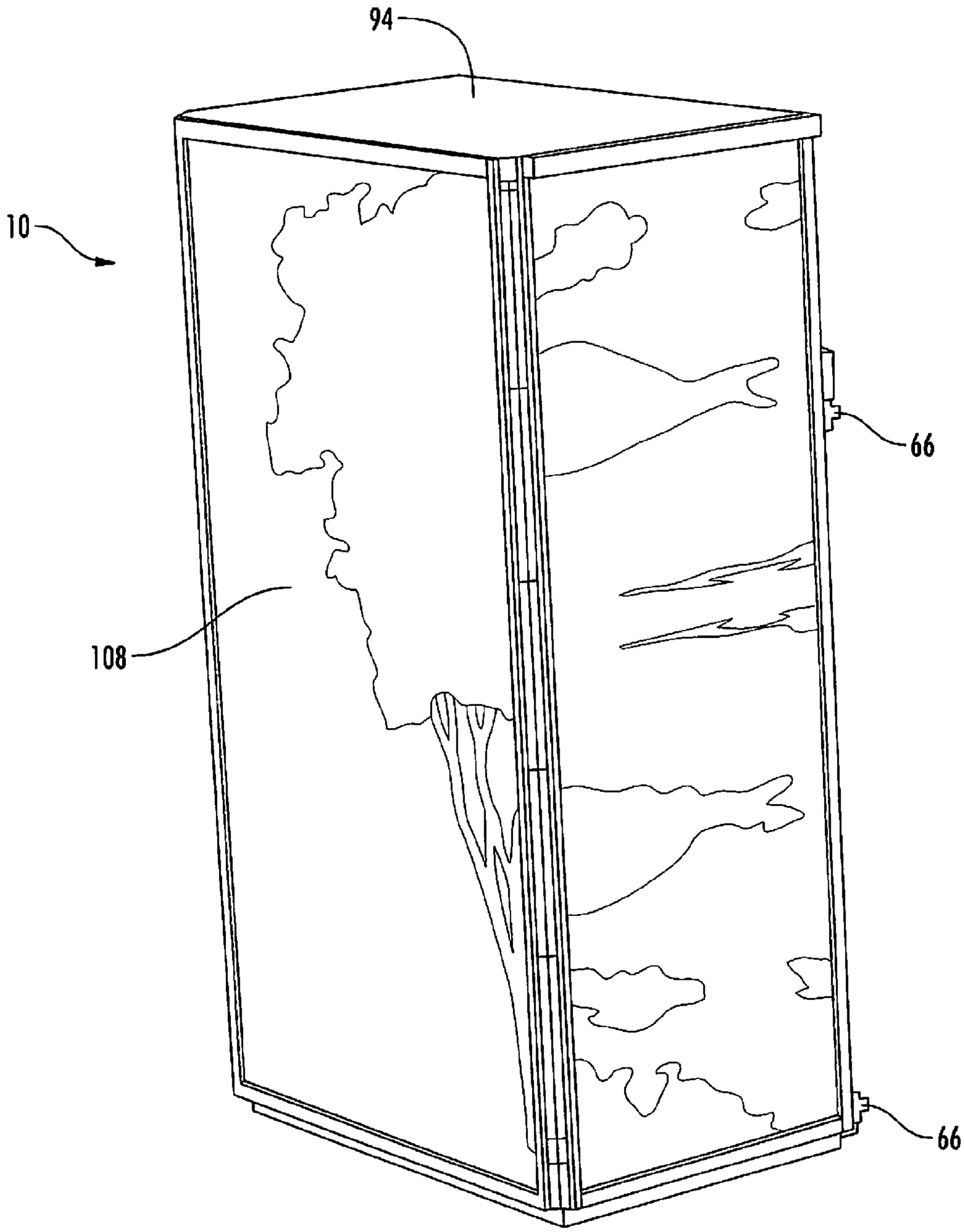


FIG. 9

# FRAMING APPARATUS AND METHOD FOR MOUNTING ADVERTISING MATERIAL TO A TRAFFIC CONTROL CABINET

## CROSS REFERENCE TO RELATED APPLICATION

This application claims priority to U.S. Provisional Application Ser. No. 62/093,456, filed Dec. 18, 2014, the contents of which are incorporated by reference and commonly owned.

## FIELD OF THE INVENTION

The present invention generally relates to advertising display devices and in particular to an advertising system mountable on a cabinet structure without jeopardizing integrity of the cabinet structure.

## BACKGROUND

Advertising media take on a variety of forms as do the devices designed to secure the advertising media to a structural support while allowing clear public view. Examples of such devices are included in U.S. Pat. No. 7,096,625 to Hering for "A Method of Displaying Advertising on a Turnstile" and U.S. Pat. No. 6,092,319 to Hicks for an "Apparatus for Connecting Advertising Substrate to Trucks." Yet further and as disclosed in US Application Publication US 2001/0035701 to Holzheid for "Framing for Public Space Housings to Hold and to Facilitate Display of Visual Materials," outdoor cabinets such as traffic control boxes provide potential sites for advertising and provide a source of advertising revenue.

As disclosed in Holzheid, equipment must be protected from the elements as well as vandalism or other destruction by humans. In many cases, the equipment is protected by a housing for traffic signal control boxes are especially susceptible to vandalism. Traffic signal control boxes are generally vertical structures positioned at street intersections for the purpose of housing the electronics needed to control traffic signals at the intersections. For example, while traffic control cabinets generally located at each intersection having traffic lights have blank space on side walls, municipalities frown on "bumper sticker" styled signs stuck to the side walls and such signs are difficult to remove. The present invention is directed to providing an advertising option for advertising from such traffic control cabinets without the need for intrusion into the cabinet walls surfaces and with ease in replacing advertising indicia. Yet further, while outer coverings for such housings may be known, there remains a need to attach such covers and thus possible advertising media to the housings without intruding or modifying the housing.

## SUMMARY

Embodiments of the present invention are herein described by way of example and directed to advertising display methods and devices mountable on a cabinet structure without jeopardy to the integrity of the cabinet.

By way of example in satisfying a need, embodiments of the invention permit signage, such as advertising, to be placed on a traffic signal control cabinet, or the like, without scratching, marring, or discoloring the original surface of the cabinet, and further without being invasive in any way to the cabinet or its function. Further, the signage may be carried by the cabinet without interfering with the cabinet access door. Embodiments of the invention permit a frictional attachment of the signage while withstanding relatively high winds and severe weather without damage to the signage. Signage may be attached to any or all sides of the cabinet while having the attaching means inaccessible to the general public.

One embodiment provides an advertising medium which may comprise a frame enclosing a traffic signal control cabinet. The frame may include opposing rails for each side of the cabinet with opposing inside surfaces of the rails including grooves extending longitudinally along the rail and spaced from each other. A light panel may be carried within one groove near, yet spaced from, surfaces of cabinet walls. An advertising panel may be carried within a second groove. The advertising panel is spaced from the light panel and on an opposite side from the cabinet wall. A clear protective panel may be carried within a third groove and opposite an outer surface of the advertising panel. Tie rods may extend between lock devices which are secured to the rails such that removing the frame from its position around the cabinet is prevented. As a result, advertising material may be secured to the traffic signal control cabinet without intruding or modifying the cabinet.



## BRIEF DESCRIPTION OF DRAWINGS

For a fuller understanding of the invention, reference is made to the following detailed description, taken in connection with the accompanying drawings in which:

FIG. **1** is a perspective view of one embodiment of the present invention including an advertising medium secured to a traffic signal control cabinet;

FIG. **2** is a perspective view of a frame assembly of the embodiment of FIG. **1** illustrating selected elements thereof, by way of non-limiting example;

FIG. **3** is a partial cross sectional view illustrating rail portions of the frame of the embodiment of FIG. **1** and use thereof;

FIG. **4** is a partial perspective view of the embodiment of FIG. **1** illustrating a locking assembly portion according to the teachings of the present invention;

FIG. **5** is a closer perspective view of the embodiment illustrated in FIG. **4** further illustrating a lock device used therewith;

FIG. **6** is a bottom view of the embodiment of FIG. **1**;

FIG. **7** is an exploded perspective view of the lock device of FIG. **5**;

FIG. **8** is a front left perspective view of the embodiment of the present invention, herein described by way of example only, illustrating advertising medium displayed from the traffic signal control cabinet; and

FIG. **9** is a rear right perspective view of the embodiment of FIG. **8**.

## DETAILED DESCRIPTION OF EMBODIMENTS

The teachings of the present invention will now be described more fully hereinafter with reference to the accompanying drawings, in which embodiments of the invention are shown by way of illustration and non-limiting example. This invention may be embodied in many forms and should not be construed as limited to the embodiments set forth herein. Rather, these embodiments are provided so that this disclosure will be thorough and complete, and will fully convey the scope of the invention to those skilled in the art.

With reference initially to FIG. **1**, one embodiment of the invention is herein described as an advertising medium **10** employing a traffic signal control cabinet **12**. As generally described, the cabinet **12** comprises a first planar side wall **14** spaced from a second planar side wall **16**, with a planar front wall **18** and rear wall **20** extending therebetween. Top and bottom walls **22**, **24** add to a rectangular shaped housing **26** having an enclosed storage area **28** formed therein. The cabinet **12** further comprises a door **30** extending over an opening **32** formed in the rear wall **20**, by way of non-limiting example, and wherein the top wall **22** extends beyond at least the rear wall **20** to form a flange **34** above the door **30**.

As illustrated with reference to FIG. **2**, a frame **36** generally encloses the cabinet **12**. The frame **36** has opposing rails **38**, **40** for each of the side **14**, **16**, rear **20** and front **18** walls of the cabinet **12**. Opposing inside surfaces **42**, **44** of the rails **38**, **40** include a plurality of grooves **46** extending longitudinally along the rail and spaced from each other, as illustrated with reference to FIG. **3**.

As further illustrated with reference to FIG. **3**, a light panel **48** is carried within a first groove **50** and spaced from surfaces **52** of the respective walls. An advertising panel **54** is carried within a second groove **56** and spaced from the light panel **48** at a further distance from the cabinet wall surface **52** than the light panel **48**. A clear protective panel **58** is carried within a third groove **60** and itself spaced from the advertising panel **54** and further distanced from the cabinet wall surface **52** than the advertising panel **54**.

As illustrated with reference again to FIGS. **1** and **2**, and now to FIGS. **4** and **5**, a first locking assembly **62** includes a first tie rod **64** extending between opposing rails **38**, **40** proximate the rear wall **20** and under the flange **34**. A lock device **66** is affixed to free ends **68**, **70** of the first tie rod **64**. The lock device **66** is secured to the opposing rails **38**, **40** proximate the rear wall **20** and under the flange **34** such that a vertical lifting of the frame **36** is limited by interaction of the first tie rod **64** with the flange.

With continued reference to FIGS. **1** and **2** and to FIG. **6**, a second locking assembly **72** includes a second tie rod **74** extending between the opposing rails **38**, **40** proximate the rear wall **20** and at a lower portion **76** of the rear wall **20** sufficient for permitting access into the cabinet housing **26** through the opening **32** when the door **30** is in an opened position. The lock device **66**, as above described, is affixed to each of opposing ends of the second tie rod **74** with the lock device secured to the opposing rails **38**, **40** with the second tie rod **74** held proximate the rear wall **20**.

As illustrated with reference to FIG. **7**, one embodiment of the lock device **66**, herein described by way of example, comprises a body **78** having a first leg **80** including a first bore **82** extending longitudinally therein. The first bore **82** receives the free end **68**, **70** of the tie rods **64**, **74**, wherein a first bolt **84** extends into the first bore **82** to secure the tie rod to the body **78**. A second leg **86** extends generally perpendicular to the first leg **80**. The second leg **86** includes a second bore **88**, herein two second bores illustrated by way of example, extending through the second leg. A second bolt **90** extends through the second bore **88** into the rail **38**, **40** and secures the body **78** to the rail, thus securing the lock device **66** to the rails.

With continued reference to FIG. **7**, the second leg **86** includes a third bore **85** extending therein proximate the second bore **88** and generally perpendicular to an axis thereof, the lock device **66** including a key **89** extending into the third bore **85** mating with the second bolt **90** for fixing the second bolt within the second bore and preventing movement thereof.



With reference again to FIG. **3**, a foam pad or sheet **92** may be sandwiched between at least some of the side wall surfaces **52** of the cabinet housing **26** and respective light panels **48**. The foam pads may optionally have a thickness for sufficiently preventing damage to the wall surfaces **52** and sufficiently thick to contact both the wall surface **52** and the light panel **48**, as desired.

With reference again to FIGS. **1** and **2**, a top cover panel **94** is secured to the plurality of rails **38**, **40** thus contributing to the forming of the frame **36**, wherein the rails, and thus the frame extends beyond the top wall **22** of the cabinet **12** for providing a utility storage area **96** between at least a portion of the top wall of the cabinet and the top cover panel. Electronic and other equipment, such as batteries, may be securely stored within the utility storage area **96**.

With reference again to FIG. **3**, adjacent rails **38**, **40** of the frame **36** located at corners **100** of the cabinet **12** are secured together, using bands **101** and screws **103**, by way of example. The mirror image shape of each rail **38**, **40** is such that tabs **102** on each rail combine to form a slot **104** longitudinally extending along the adjacent rails **38**, **40**, by way of example. A ribbon cover **106** extends in the slot and limits access to the screws **103**, by way of further example.

As illustrated with reference to FIGS. **8** and **9**, it will come to the mind of those skilled in the art that commercial and environmental promotions indicia/images **108** may be attractively displayed from what is typically a bland box. Such use can further benefit the government entities responsible for traffic signal control cabinets by providing desired revenue while maintaining the integrity of the traffic signal control.

It is to be understood that the invention is not to be limited to the specific embodiments disclosed, and that modifications and alternate embodiments are intended to be included within the scope of the claims supported by this specification.

That which is claimed is:

**1**. An advertising medium comprising:

a traffic signal control cabinet having a first planar side wall spaced from a second planar side wall, and planar front and rear walls extending therebetween, and top and bottom walls forming a rectangular shaped housing having an enclosed storage area formed therein, the cabinet further comprising a door extending over an opening formed in the rear wall, and where the top wall extends beyond the rear wall so as to form a flange above the door;

a frame generally enclosing the cabinet, the frame having opposing rails for each of the side, rear and front walls of the cabinet, wherein opposing inside surfaces of each of the rails include a plurality of grooves extending longitudinally along the rail and spaced from each other;

a light panel carried within a first groove of the plurality of grooves, the light panel held in spaced relation to a surface of a respective cabinet wall;

an advertising panel carried within a second groove of the plurality of grooves, the advertising panel spaced from the light panel and further distanced from the cabinet wall than the light panel;

a clear protective panel carried within a third groove of the plurality of grooves, the clear protective panel spaced from the advertising panel and further distanced from the cabinet wall than the advertising panel;

a first tie rod extending between opposing rails proximate the rear wall and under the flange;

a lock device affixed to each of opposing ends of the first tie rod, the lock device secured to the opposing rails proximate the rear wall, wherein a vertical lifting of the frame is limited by interaction of the first tie rod with the flange;

a second tie rod extending between opposing rails proximate the rear wall and at a lower portion of the rear wall sufficient for permitting the access into the cabinet through an opened door; and

a lock device affixed to each of opposing ends of the second tie rod, the lock device secured to the opposing rails proximate the rear wall.

**2**. The advertising medium according to claim **1**, wherein the lock device comprises:

a body having a first leg having a first bore extending longitudinally therein, the first bore receiving a free end of the tie rod therein, wherein a first bolt extending into the first bore secures the tie rod to the body;

a second leg extending generally perpendicular to the first leg, the second leg having a second bore extending therethrough, wherein a second bolt extends through the second bore into the rail secures the body to the rail, thus securing the lock device thereto.



**3**. The advertising medium according to claim **2**, wherein the second leg includes a third bore extending therein proximate the second bore and generally perpendicular to an axis thereof, the lock device including a key extending into the third bore mating with the second bolt for fixing the second bolt within the second bore and preventing movement thereof.

**4**. The advertising medium according to claim **1**, further comprising a foam pad sandwiched between at least some of the side wall surfaces of the cabinet and respective light panels.

**5**. The advertising medium according to claim **1**, further comprising a top cover panel secured to the frame, wherein the frame extends beyond the top wall of the cabinet for providing a utility storage area between at least a portion of the top wall of the cabinet and the top cover panel.

**6**. The advertising medium according to claim **5**, further comprising electronic equipment within the utility storage area.

**7**. The advertising medium according to claim **1**, wherein adjacent rails of the frame located at corner portions of the cabinet are secured together, wherein a slot is formed longitudinally along the adjacent rails, and wherein the frame comprises a ribbon cover extending in the slot.

* * * * *